

REMARKS

An excess claim fee payment letter is submitted herewith for excess claims.

Claims 1-23 are all the claims presently pending in the application. Claims 1-10 have been amended only for purpose of clarity to more particularly define the invention. Claims 11-23 have been added to claim additional features of the invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-2 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sundelin, et al. (U.S. Patent No. 6,144,861) in view of Douzono, et al. (U.S. Patent No. 5,574,983). Claims 3-5 and 7-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sundelin, et al. in view of Douzono, et al., and further in view of Chheda, et al. (U.S. Patent No. 6,515,975).

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

As described in, for example, claim 1, the claimed invention is directed to a transmit power control method in a CDMA mobile communication system. A checking step checks whether one or more base transceiver stations (BTSs) are connected. In a calculating step, when a result of the checking step shows that two or more BTSs are

connected, CH receive SIRs (Signal to Interference Ratios) corresponding to the connected BTSs are selected and a calculation by using the selected values is made. In a reference value changing step, the value of a reference value S_{ref} is changed according to a result of the calculation.

When the result of the checking step shows that only one BTS is connected, the reference value S_{ref} is set to an upper limit in an upper limit setting step. In a reporting step, the changed reference value S_{ref} is reported to all the connected BTSs. It is possible to decide the reference value S_{ref} in response to a variation in selection/synthesis gain due to an increase or a decrease of the number of connected BTSs.

As explained in the specification, the present invention provides a method to change, at a high speed, the reference SIR used for reference in a high-speed closed loop control of an up link in a transmit power control method in a CDMA mobile communication system.

The conventional methods discussed, beginning at line 20 of page 2 of the specification, for this loop control is based on measurement of the frame error rate. Using either of the two methods takes time to execute to achieve an optimal value, resulting in excessive transmit power and user interference.

As explained beginning at line 5 of page 12, the claimed invention, on the other hand, by using the Perch CH receive SIR information to decide whether the reference SIR should be changed, permits a rapid change of the reference SIR, relative to the time required in the conventional methods, thereby reducing the problems of excessive transmit power and interference in the system.

II. THE 35 USC §112, SECOND PARAGRAPH REJECTION

Claims 6 and 10 stand rejected under 35 U.S.C. §112, second paragraph. The claims have been amended, above, to overcome this rejection. Specifically, these two claims have been amended to incorporate the parameter α , as inadvertently deleted from the version shown at lines 26-28 of page 11.

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. THE PRIOR ART REJECTIONS

The Examiner alleges that Sundelin, as modified by Douzono, renders obvious the present invention as defined by claims 1 and 2, and, when further modified by Chheda, renders obvious the present invention defined by claims 3-5 and 7-9.

Applicant respectfully disagrees.

In the present invention, the BTSs are connected to the RNC and, to set the value of the SIR, a gain of selection/synthesis (diversity) is taken into consideration.

Considering the gain of diversity does not mean to merely count the number of connected BTSs, as the rejection currently of record seems to imply.

Rather, this concept means to evaluate the degree of contribution of every BTS for the gain of diversity. To determine whether the gain can be obtained, the present invention checks whether the difference of SIRs received at BTSs is small. Sundelin, even if modified by Douzono and/or Chheda, fails to teach or suggest this approach.

This distinction shows up in the plain meaning of the language of the independent claims 1, 2, and 3. Thus, in claim 1, the verb “selecting” clearly states that a process involving selection of SIRs is executed in the claimed method, with these selected values

then used in a calculation. Sundelin clearly makes no “selection of SIRs” currently being received, let alone use the selected SIRs as the basis for a calculation involving the control of a power loop.

Moreover, the final limitation of claim 1 clearly identifies a “selection/synthesis gain”, another concept that is not recognized in the prior art of record.

The Examiner relies upon Douzono for demonstrating “... changing a reference value according to the number of base stations in the system.” As pointed out above, the plain language of the independent claims is not describing this simplistic process.

The Examiner further relies upon Chhedha for demonstrating “... in a system for performing power control, determining the number of BTS in which a difference between the maximum transmit power and the receive transmit power becomes a predetermined value T2 or less.”

However, Applicant submits that this extracted part of Chhedha merely discloses the way to determine whether a base station can be the subject of soft hand-over, based on received Eb/No in the down direction. Applicant submits that, to one of ordinary skill, this is an entirely different concept from that of the present invention. Therefore, Chhedha is clearly different from the present invention, where a target value of SIR in the up direction is set (Outer Loop Power Control), and the feature of the present invention of determining the degree of contribution of BTSs for the gain of diversity is not at all obvious from Chhedha.

Therefore, neither Douzono nor Chhedha overcomes the deficiency identified above for Sundelin.

Hence, turning to the clear language of the claims, there is no teaching or suggestion of: “...selecting CH receive SIRs (Signal to Interference Ratios) corresponding to the

connected BTSs, and making a calculation by using the selected values ... wherein it is possible to decide the reference value S_{ref} in response to a variation in selection/synthesis gain due to an increase or a decrease of the number of connected BTSs”, as required by independent claim 1.

Therefore, Applicant submits that there are elements of the claimed invention that are not taught or suggest by Sundelin, Douzono, or Chheba. Therefore, the Examiner is respectfully requested to withdraw this rejection.

IV. FORMAL MATTERS AND CONCLUSION

Minor errors have been corrected in the disclosure.

The Office Action objects to Figure 1. This objection is addressed by deleting the reference to label “211” in the specification, as per the specification revision on page 2 above.

In view of the foregoing, Applicant submits that claims 1-23, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

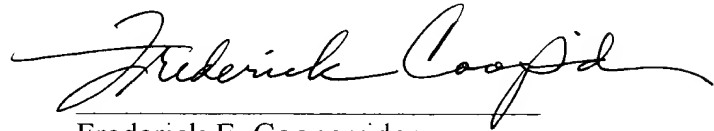
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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: _____

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Frederick E. Cooperrider
Registration No. 36,769

McGinn & Gibb, PLLC
8321 Old Courthouse Road, Suite 200
Vienna, VA 22182-3817
(703) 761-4100
Customer No. 21254